

```

%-----
% NPCODE.m
%
% A user INCLUDE code
%
% LNP(I,J,K) = node K, on side J
% of element I.
%-----

% -----
% Set n-factor for number of nodes
% on a side
% -----
    if NNPE == 6 | NNPE == 8
        n=2;
    else
        n=1;
    end

% -----
% Initialize NPcode array
% -----
for i=1:NUMNP
    NPcode(i)=0;
end

for I=1:NUMNP
    if abs(XORD(I)+25) <= 0.01
        % Set NPcode = 1 on left boundary
        NPcode(I)=1;
    elseif abs(sqrt(XORD(I).^2+YORD(I).^2)-3.75) < 0.01
        % Set NPcode = 2 on circle
        NPcode(I)=2;
    elseif abs(XORD(I)-25) <= 0.01
        % Set NPcode = 3 on right boundary
        NPcode(I)=3;
    elseif abs(YORD(I)-10) < 0.01
        % Set NPcode=4 on top boundary
        NPcode(I)=4;
    end
end
end

```